

# Florida Keys Water Watch & Georgia Adopt-A-Stream Volunteer Water Quality Monitoring Programs: A Successful Multi-State Outreach Partnership

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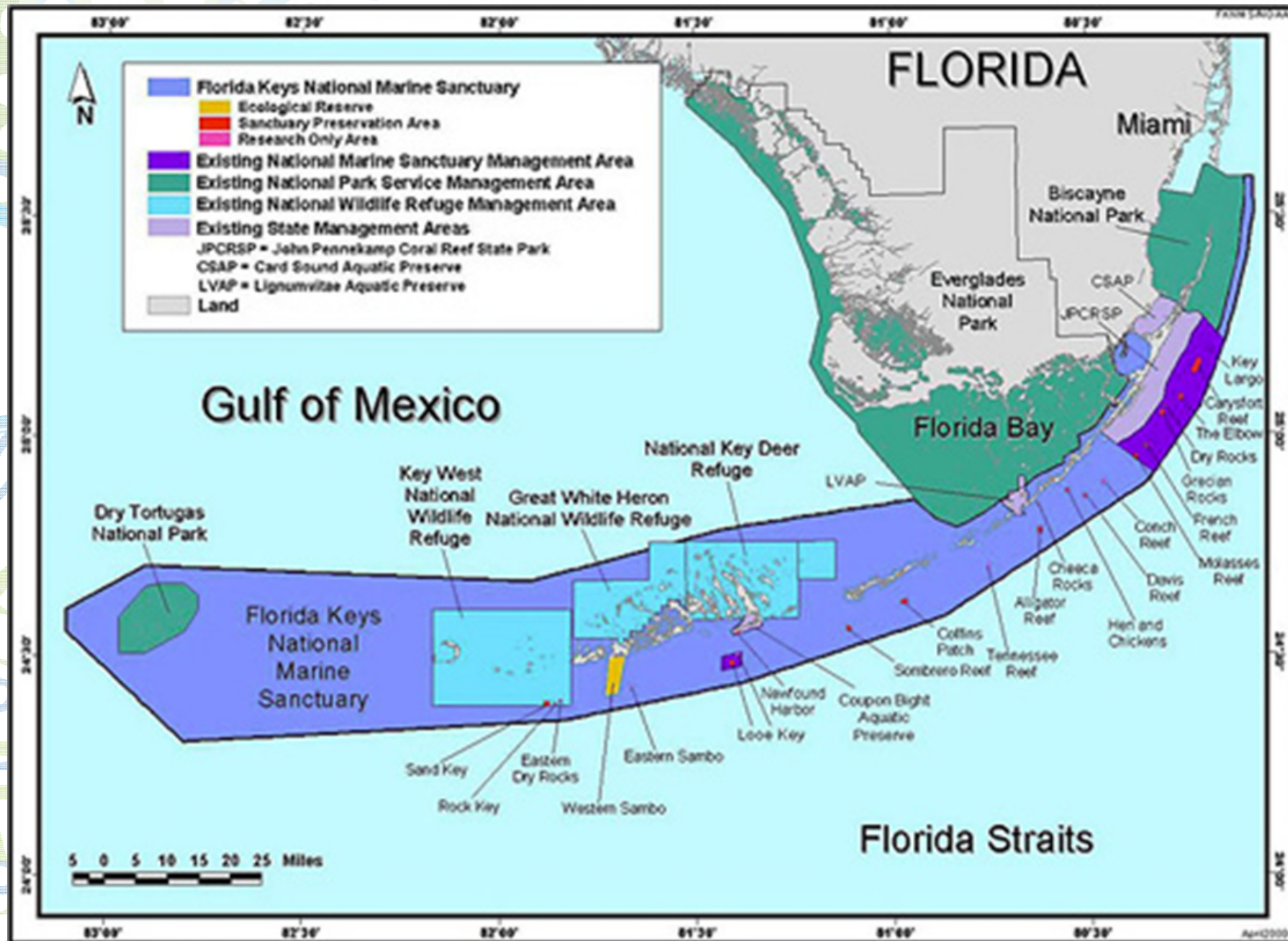


# The Florida Keys





# Florida Keys National Marine Sanctuary



# History of Development



**Developing of Sugarloaf Shores**

- 1950s - Bulldoze, dredge and fill!
- **CREATED:**
  - 312 miles waterfront property
  - 170 miles canals
- Today – legacy of canals created w/o regard to economic & ecological implications





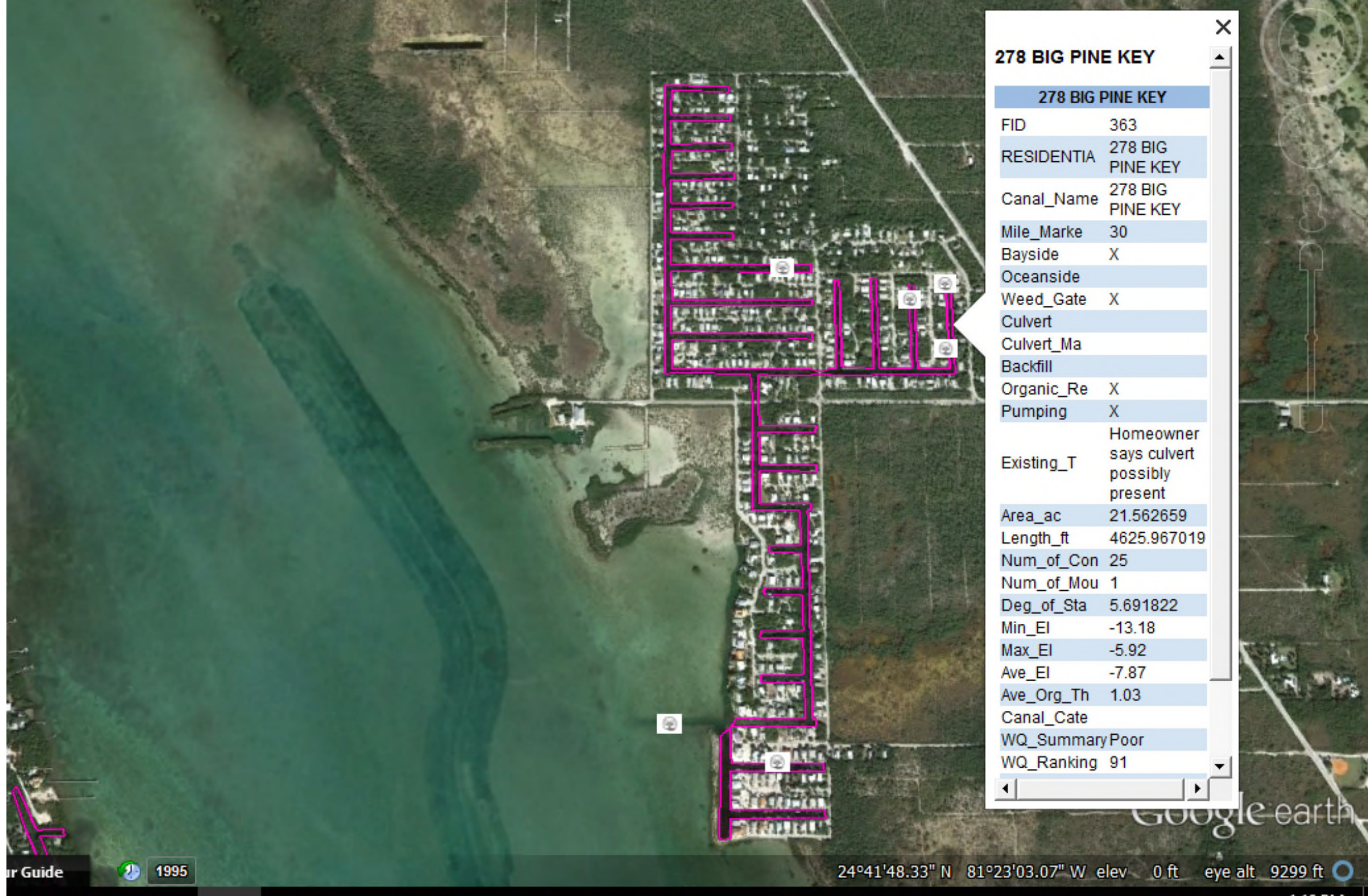
Data SIO, NOAA, U.S. Navy, NGA, GEBCO

## 151 LOWER MATECUMBE KEY

### 151 LOWER MATECUMBE KEY

FID	439
RESIDENTIA	151 LOWER MATECUMBE KEY
Canal_Name	151 LOWER MATECUMBE KEY
Mile_Marke	75
Bayside	X
Oceanside	
Weed_Gate	
Culvert	X
Culvert_Ma	
Backfill	
Organic_Re	X
Pumping	X
Existing_T	
Area_ac	14.325764
Length_ft	2099.727919
Num_of_Con	2
Num_of_Mou	1
Deg_of_Sta	2.237442
Min_El	-9.03
Max_El	-6.71
Ave_El	-7.20
Ave_Org_Th	1.30
Canal_Cate	
WQ_Summary	Fair
WQ_Ranking	







# Nutrients Nutrient Nutrients!

Wastewater/Stormwater



Accumulated Organics



# Monroe Co Canal Management Master Plan

## Water Quality Summary Classification Criteria

DO Conditions	Biological Conditions	Water Quality Summary
> 4.0 mg/L	Positive	Good
> 4.0 mg/L	Negative	Fair
3.0 - 4.0 mg/L	Positive	Fair
3.0 - 4.0 mg/L	Negative	Poor
< 3.0 mg/L	Negative or Positive	Poor

## Canal Classifications

Total # Canals Systems	502
Good	171
Fair	180
<b>Poor</b>	<b>131</b>
Not Classified	20





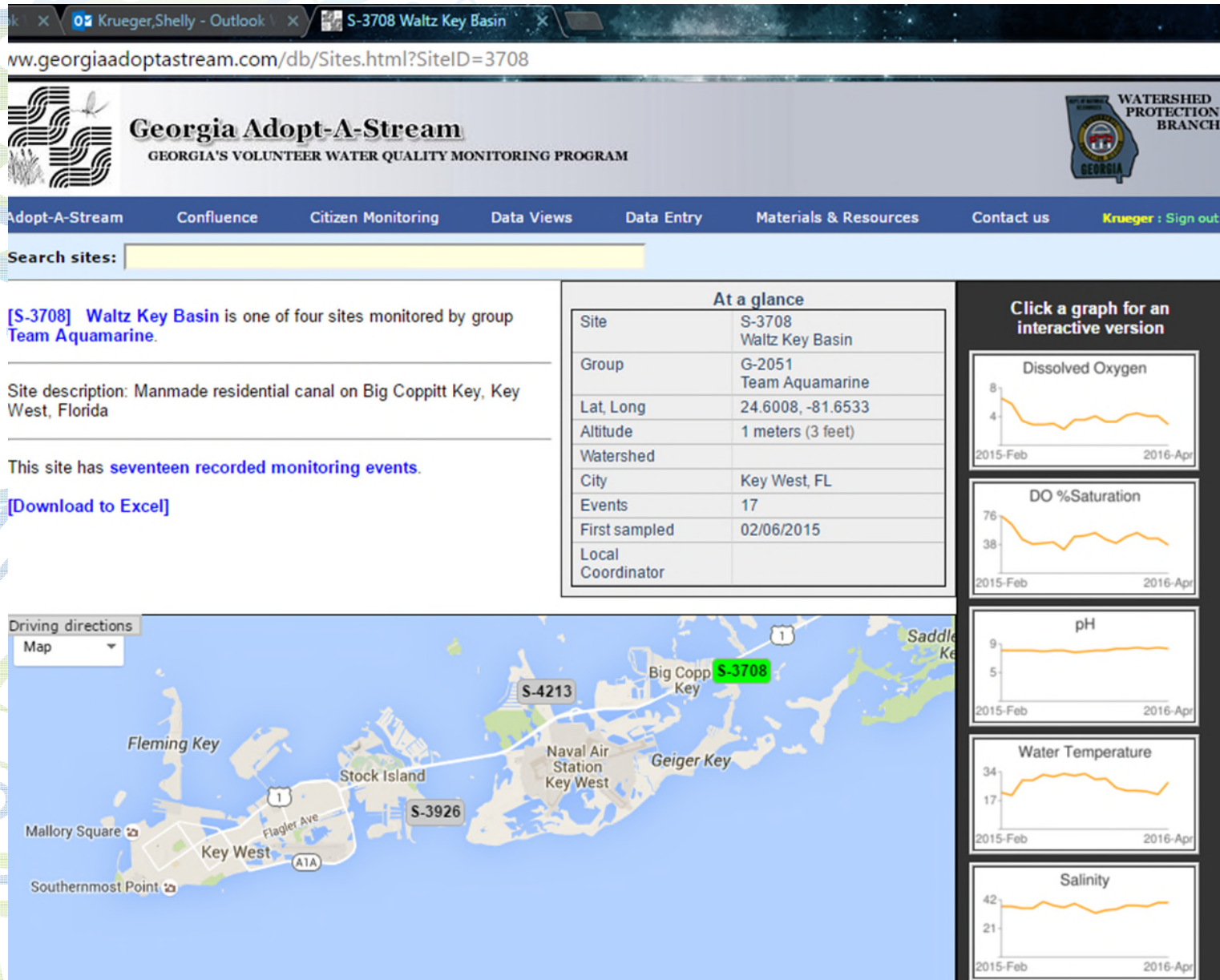
# Volunteer Water Quality Monitoring Program

# Partnership with Georgia Adopt-A-Stream





# GA Adopt-A-Stream QA/QC



Dissolved oxygen

pH

Temperature

Salinity

## Instructions

- Enter data for one or more of the following:

☒ Site (required)

☒ Chemical

☐ Bacterial

☐ Macroinvertebrate

## Visual Forms

☐ Stream Habitat

- Click below to view Required parameters, Errors, or Warnings:

**View six required parameters**

- Submit**

☒ Email

Clear check box if you don't want email confirmation.

**Clear form**

You *cannot* submit a form that has **Errors** or missing **Required Data**.

You *can* submit a form that has **Warnings**, but it will be flagged as out of compliance with the AAS quality assurance plan.

## Chemical Data

Did you calibrate your meter and/or probe?

☐ Yes

☐ No, please explain:

## Reagents

Select any expired reagents:

☐ Alkaline Potassium Iodide Azide

☐ Manganous Sulfate Solution

☐ pH Wide Range Indicator

☐ Sodium Thiosulfate

☐ Starch Indicator

☐ Sulfuric Acid 1:1

Other:

Contact the State office at [AAS@gaepd.org](mailto:AAS@gaepd.org) to obtain replacement reagents.

## Tests

Core Tests	Test 1	Test 2	Units	Average	Other Tests	Result	Units
Air Temp			°C		Alkalinity		mg/L (ppm)
Water Temp			°C		Ammonia-N		mg/L (ppm)
pH (+/-0.25)			Standard unit		Nitrate-N		mg/L (ppm)
Dissolved Oxygen (+/-0.6)			mg/L (ppm)		Orthophosphate		mg/L (ppm)
Conductivity			µS/cm		Sampling Depth		cm
Salinity (+/-1)			ppt		Settleable Solids Enter T for Trace		mg/L (ppm)
Secchi Disk (+/-10)			cm		Turbidity		NTU
Chlorophyll a			µg/L		If you have additional tests not found under Core Tests or Other Tests, enter them below. (Extra rows will be added as needed.)		
					Test	Result	Units

## Comments

Any chemical changes to note since you last sampled at this site?  
If so, please describe. Otherwise, please leave blank.



# FKWW Program Goals



- **A: AWARENESS** – Importance of water quality
- **D: DATA** – Collect baseline water quality data
- **A: ADOPT** – BMPs to prevent nonpoint source pollution



- **P: PARTNERSHIPS** – Citizens & agencies
- **T: TOOLS & TRAINING** – To evaluate local waterways



# Best Management Practices (BMPs)

All individuals responsible for preventing or reducing pollution from boats must have the necessary equipment and knowledge to properly handle and dispose of fish carcasses, bait, and other waste. BMPs are the best way to prevent or reduce the pollution of waters of the United States.





# Florida Keys Water Watch Sites (n=40)



## CONCLUSION

Volunteer-based water quality monitoring programs are valuable to assess environmental trends when data is collected consistently over time, and GA-AAS has successfully trained thousands of volunteers to monitor rivers, streams, and coastal waters since 1993

By partnering with an organization with a proven track record, FKWW seeks to replicate the success of GA-AAS in the Florida Keys

The partnership with GA-AAS has allowed FKWW to train volunteers under their EPA-approved QA/QC protocols while the quality assurance project plan I submitted to the EPA is in the process of being approved.





Thank You Georgia Adopt-A-Stream!

Questions?

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